

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0015] with the following rewritten paragraph:

Figure 2 is an illustrative, non-limiting list of known GPCRs that may be used with the present invention. Figures 2A to 2B includes a non-limiting list of the known Class I GPCRs. Figure 2C is a non-limiting list of the known Class II and Class III GPCRs.

Please replace paragraph [0016] with the following rewritten paragraph:

Figure 3A is an illustrative, non-limiting list of known Class A receptors, including amino acid sequence for their carboxyl terminal tails (~~Sequence ID Nos: 1-39~~) ~~and appropriate classification. For the Class B receptor examples, the residues that may function as phosphorylation sites in the enhanced affinity motifs are shown in bolded italics (SEQ ID NOS:1-9).~~ Figure 3B is an illustrative, non-limiting list of known Class A receptors, including amino acid sequence for their carboxyl terminal tails (SEQ ID NOS:10-20). Figure 3C is an illustrative, non-limiting list of known Class A and Class B receptors, including amino acid sequence for their carboxyl terminal tails, and the residues that function as phosphorylation sites in the enhanced affinity motifs are shown in bolded italics (SEQ ID NOS:21-30). Figure 3D is an illustrative, non-limiting list of known Class A and Class B receptors, including amino acid sequence for their carboxyl terminal tails, and the residues that function as phosphorylation sites in the enhanced affinity motifs are shown in bolded italics (SEQ ID NOS:31-39).

Please replace paragraph [0017] with the following rewritten paragraph:

Figures 4A-C illustrate[[s]] the amino acid sequences of the following GPCRs in which the DRY motif has been modified: Vasopressin V2 Receptor (V2R), Alpha-1B Adrenergic Receptor (α_{1B} -AR), and Angiotensin II Receptor, Type 1 (AT_{1A}R). ~~The figure illustrates the amino acid sequences of the receptors with the following mutations:~~ Figure 4A illustrates the amino acid sequence of the V2R R137H mutation (Sequence ID No.: 40) (SEQ ID NO:40), with the amino acids differing from the wild type sequence in

bold and underlined. Figure 4B illustrates the α_{1B} -AR R143E mutation (~~Sequence ID No.: 41~~) (SEQ ID NO:41)[[,]] the α_{1B} -AR R143A mutation (~~Sequence ID No.: 42~~) (SEQ ID NO:42), the α_{1B} -AR R143H mutation (~~Sequence ID No.: 43~~) (SEQ ID NO:43), and the α_{1B} -AR R143N mutation (~~Sequence ID No.: 44~~) (SEQ ID NO:44), and ~~AT_{1A}R R126H~~ (~~Sequence ID No.: 45~~). Amino acids that differ from the wild-type sequence are in bold and underlined. Figure 4C illustrates the ~~AT_{1A}R R126H~~ mutation (SEQ ID NO:45). Amino acids that differ from the wild-type sequence are in bold and underlined.

Please replace paragraph [0018] with the following rewritten paragraph:

Figures 5A-5J are ~~[[is]]~~ a list of amino acid and nucleic acid sequences of the following GPCRs that have been modified to have enhanced affinity for arrestin: hGPR3-Enhanced receptor, hGPR6-Enhanced receptor, hGPR12-Enhanced receptor, hSREB3-Enhanced receptor, hSREB2-Enhanced receptor, hGPR8-Enhanced receptor, and hGPR22-Enhanced receptor. Figures 5A and 5B respectively illustrate the amino acid sequence (~~Sequence ID No.: 46~~) (SEQ ID NO:46) and the nucleic acid sequence (~~Sequence ID No.: 47~~) (SEQ ID NO:47) of the hGPR3-Enhanced receptor. Figures 5C and 5D respectively illustrate the amino acid sequence (~~Sequence ID No.: 48~~) (SEQ ID NO:48) and the nucleic acid sequence (~~Sequence ID No.: 49~~) (SEQ ID NO:49) of the hGPR6-Enhanced receptor. Figures 5E and 5F respectively illustrate the amino acid sequence (~~Sequence ID No.: 50~~) (SEQ ID NO:50) and the nucleic acid sequence (~~Sequence ID No.: 51~~) (SEQ ID NO:51) of the hGPR12-Enhanced receptor. Figures 5G and 5H respectively illustrate the amino acid sequence (~~Sequence ID No.: 52~~) (SEQ ID NO:52) and the nucleic acid sequence (~~Sequence ID No.: 53~~) (SEQ ID NO:53) of the hSREB3-Enhanced receptor. Figures 5I and 5J respectively illustrate the amino acid

sequence (~~Sequence ID No.: 54~~) (SEQ ID NO:54) and the nucleic acid sequence (~~Sequence ID No.: 55~~) (SEQ ID NO:55) of the hSREB2-Enhanced receptor. Figures 5K and 5L respectively illustrate the amino acid sequence (~~Sequence ID No.: 56~~) (SEQ ID NO:56) and the nucleic acid sequence (~~Sequence ID No.: 57~~) (SEQ ID NO:57) of the hGPR8-Enhanced receptor. Figures 5M and 5N respectively illustrate the amino acid sequence (~~Sequence ID No.: 58~~) (SEQ ID NO:58) and the nucleic acid sequence (~~Sequence ID No.: 59~~) (SEQ ID NO:59) of the hGPR22-Enhanced receptor.